SEQUENCE LISTING



RECEIVED

TECH CENTER 1600/2900

(1) GENERAL INFORMATION:

- (i) APPLICANT:
- Henrik Stender
- Kaare Lund
- Tina Anderson Hollerup
- (ii) TITLE OF INVENTION: Novel Process For The Detection of Mycobacteria
- (iii) NUMBER OF SEQUENCES: 123
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE:
- **GRAHAM & JAMES LLP**
- (B) STREET
- 885 Third Avenue
- (C) CITY:
- New York
- (C) CITT. (D) STATE:
- New York
- (E) COUNTRY:
- USA
- (F) ZIP:
- 10022
- (v) COMPUTER READABLE FORM;
 - (A) MEDIUM TYPE: Floppy disk 3.5 inch
 - (B) COMPUTER: IBM PC compatible
 - (C) OPERATING SYSTEM, ASCII
 - (D) SOFTWARE: Microsoft Word
- (vi)CURRENT APPLICATION DATA:
 - (A) APPLICATION/NUMBER: 08/943,777
 - (B) FILING DATE: October 3, 1997
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: 60/028,392
 - (B) FILING DATE: 10/15/96
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 - (B) FILING DATE: 10/23/96
 - (A) APPLICATION NUMBER: 05/05/97
 - (B) FILING DATE: 05/08/97

(viii) ATTORNEY/AGENT:

- (A) Vineet Kohli
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(2) INFORMATION FOR SEQ ID NO: 1:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear



AGATCGGGGT AGCAC 15

(2) INFORMATION FOR SEQ ID NO: 2:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

TGTTTTCTCC TCCTA 15

- (2) INFORMATION FOR SEQ ID NO: 3:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D)/TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

ACTGCCTCTC AGCCG 15

- (2) INFORMATION FOR SEQ ID NO: 4:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single



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- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

TGATACTAGG CAGGT 15

- (2) INFORMATION FOR SEQ ID NO: 5:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

CGGATTCACA GCGGA 15

- (2) INFORMATION FOR SEQ ID NQ: 6:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear,
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

TCACCACCCT CCTCC 1/5

- (2) INFORMATION FOR SEQ ID NO: 7:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH:/15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

TTAACCTT &C GACAT 15

- (2) INFORMATION FOR SEQ ID NO: 8:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs

- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

ACTATTCACA CGCGC 15

(2) INFORMATION FOR SEQ ID NO: 9:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs/
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear/
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

CTCCGCGGTG AACCA 15

- (2) INFORMATION FOR SEQ ID NO: 10:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 10

GCTTTACA/CC ACGGC 15

- (2) INFORMATION FOR SEQ ID NO: 11:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

ACCTTGGGG GCCTT 15

(2) INFORMATION FOR SEQ ID NO: 12:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID/NO: 12:

CCACACCCAC CACAA 15

(2) INFORMATION FOR SEQ ID NO:13:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS:/single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

CCGGTGGCTT CGCT/G 15

- (2) INFORMATION FOR SEQ ID NO: 14:
 - (i) SEQUENCÉ CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

ACTTGCTTG TCGCT 15

- (2) INFORMATION FOR SEQ ID NO: 15:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs

- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

GATTCGTCAC GGGC 15

- (2) INFORMATION FOR SEQ ID NO: 1/6:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

AACTCCACAC CCCCG 15

- (2) INFORMATION FOR SEQ ID NO: 17:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH:/15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

ACTCCACA CC CCCGA 15

- (2) INFORMATION FOR SEQ ID NO: 18:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

ACCCCTTCGC TTGAC 15

(2) INFORMATION FOR SEQ ID NO: 19:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEØ ID NO: 19:

CTTGCCCCAG TGTTA 15

(2) INFORMATION FOR SEQ ID NO: 20:

- (i) SEQUENCE CHARAC/TERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY/linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

CTCTCCCTAC ØGGCT 15

(2) INFORMATION FOR SEQ ID NO: 21:

- (i) SEQUENCE CHARACTERISTICS:
 - (A)/LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (¢) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

GATATTCCGG TCCCC 15

- (2) INFORMATION FOR SEQ ID NO: 22:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

ACTCCGCCCC AACTG 15

(2) INFORMATION FOR SEQ ID NO: 23:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

CTGTCCCTAA ACCCG 15

(2) INFORMATION FOR SEQ ID NO: 24:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH; 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

TTCGAGGTTA GATGC 15

(2) INFORMATION FOR SEQ ID NO: 25:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

GTCCCTAAAC CCGAT 15

(2) INFORMATION FOR SEQ ID NO: 26:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

GGTGCACCAG AGGTT 15

(2) INFORMATION FOR SEQ/ID NO: 27:

- (i) SEQUENCE CHARA TERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY. linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

CTGGCGGGAC AACTG 15

- (2) INFORMATION FOR SEQ ID NO: 28:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C)STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii)/SEQUENCE DESCRIPTION: SEQ ID NO: 28:

TTATCCTGAC CGAAC 15

- (2) INFORMATION FOR SEQ ID NO: 29:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 29:

GACCTATTGA ACCCG 15

- (2) INFORMATION FOR SEQ ID NO: 30:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

GAAGAGACCT TTCCG 15

- (2) INFORMATION FOR SEQ ID NO: 31:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENC DESCRIPTION: SEQ ID NO: 31:

CACTCGAGTA TCTCC 15

- (2) INFORMÁTION FOR SEQ ID NO: 32:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B)/TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii)/SEQUENCE DESCRIPTION: SEQ ID NO: 32:

ATCACCCACG TGTTA 15

(2) INFORMATION FOR SEQ ID NO: 33:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NØ: 33:

GCATCCCGTG GTCCT 15

- (2) INFORMATION FOR SEQ ID NO;/34:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear/
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 34:
- CACAAGACAT GCATC/15
- (2) INFORMATION FOR SEQ ID NO: 35:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH:/15 basepairs
 - (B) TYPE: nycleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 35:
- TAAAGCGC/TT TCCAC 15
- (2) INFORMATION FOR SEQ ID NO: 36:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

GCTCATCCCA CACCG 15

- (2) INFORMATION FOR SEQ ID NO: 37:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs,
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

CCGAGAGAAC CCGGA 15/

- (2) INFORMATION FOR SEQ ID NO: 38:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH/15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

AGTCCCC/ACC ATTAC 15

- (2) INFØRMATION FOR SEQ ID NO: 39:
 - (i)/SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

AACCTCGCGG CATCG 15

(2) INFORMATION FOR SEQ ID NO: 40:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

GGC TTTTAAG GATTC 15

(2) INFORMATION FOR SEQ ID NO: 41:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15/basepairs
 - (B) TYPE: nucletic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENÇE DESCRIPTION: SEQ ID NO: 41:

GACCCCGATC CGAAC 15

- (2) INFORMATION FOR SEQ ID NO: 42:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

CCGACTTCAC GGGGT 15

- (2) INFORMATION FOR SEQ ID NO: 43:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

CGGAGGGCA GTATC 15

- (2) INFORMATION FOR SEQ ID NO: 44:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID/NO: 44:

GATCAATGCT CGGT 15

- (2) INFORMATION FOR SEQ ID NO: 45:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS/single
 - (D) TOPOLOGY: lingar
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

TTCCCCGCGT TAC¢T 15

- (2) INFORMATION FOR SEQ ID NO: 46:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D)/TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 46:

TTAGCCTGTT CCGGT 15

(2) INFORMATION FOR SEQ ID NO: 47:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 47:

GCATGCGGTT TAGCC 15

- (2) INFORMATION FOR SEQ ID NO: 483
 - (i) SEQUENCE CHARACTERISTIÇS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 48:
- **TACCCGGTTG TCCAT 15**
- (2) INFORMATION FOR/SEQ ID NO: 49:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucletic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 49:
- GTAGAGCTGA GACAT 15
- (2) INFORMATION FOR SEQ ID NO: 50:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A)/LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 50:

GCCGTCCCAG GCCAC 15

- (2) INFORMATION FOR SEQ ID NO: 51:
 - (i) SEQUENCE CHARACTERISTICS!
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single/
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO:51:

CTCGGGTGTT GATAT 15

- (2) INFORMATION FOR SEQ ID NO: 52:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE/nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 52:

ACTAT/TCAC TCCCT 15

- (2) INFORMATION FOR SEQ ID NO: 53:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 53:

ACGCCATCAC CCCAC 15

(2) INFORMATION FOR SEQ ID NO: 54:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 54:

CGACGTGTCC CTGAC 15

(2) INFORMATION FOR SEQ ID NO: 55:

- (i) SEQUENCE CHARACTÉRISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DÉSCRIPTION: SEQ ID NO: 55:

ACTACACCCC AAAGG 15

- (2) INFORMATION FOR SEQ ID NO: 56:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

CACGCTTTTA CACCA 15

- (2) INFORMATION FOR SEQ ID NO: 57:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

GCGACTACAC ATCCT 15

- (2) INFORMATION FOR SEQ ID NO: 58:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SÉQ ID NO: 58:

CGGCGCATAA TCACT 15

- (2) INFORMATION FOR SEQ'ID NO: 59:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

CCACATCCAC CGTAA 15

- (2) INFORMATION FOR SEQ ID NO: 60:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (Q') STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

CCCTGAATGG GGGAC 15

(2) INFORMATION FOR SEQ ID NO: 61:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ LO NO: 61:

GGAGCTTCGC TGAAT 15

(2) INFORMATION FOR SEQ ID NO: 62:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid/basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

CGGTCACCCG GAGCT 15

- (2) INFORMATION FOR SEQ ID NO: 63:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

GGAC©CCCAT ACACG 15

- (2) INFORMATION FOR SEQ ID NO: 64:
 - /(i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

GAAGGGGAAT GGTCG 15

- (2) INFORMATION FOR SEQ ID NO: 65:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION/SEQ ID NO: 65:

AATCGCCACG CCCCC 15

- (2) INFORMATION FOR SEQ ID NO: 66:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleix acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE/DESCRIPTION: SEQ ID NO: 66:

CAGCGAAGGT/CCCAC 15

- (2) INFORMATION FOR SEQ ID NO: 67:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B)/TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii)/SEQUENCE DESCRIPTION: SEQ ID NO: 67:

GT¢ACCCCAT TGCTT 15

(2) INFORMATION FOR SEQ ID NO: 68:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

ATCGCTCTCT ACGGG 15

(2) INFORMATION FOR SEQ ID NO: 69:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS/single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

GTGTATGTGC TCG¢T 15

- (2) INFORMATION FOR SEQ ID NO: 70:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

ACGG/TATTCC GGGCC 15

- (2) INFORMATION FOR SEQ ID NO: 71:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

GGCCGAATCC CGCTC 15

- (2) INFORMATION FOR SEQ ID NO: 72:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

AAACAGTCGC TACCC 15

- (2) INFORMATION FOR SEQ ID NO: 73:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleix acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE/DESCRIPTION: SEQ ID NO: 73:

CCTTACGGGT/TAACG 15

- (2) INFORMATION FOR SEQ ID NO: 74:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (fi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

GAGACAGTTG GGAAG 15

(2) INFORMATION FOR SEQ ID NO: 75:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID/NO: 75:

FGGCGTCTGT GCTTC 15

(2) INFORMATION FOR SEQ ID NO: 76:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid/basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

CGACTCCACA CAAAC 15

- (2) INFORMATION FOR SEQ ID NO: 77:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) \$TRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 77:
- GATAAGGGTT CGACG 15
- (2) INFORMATION FOR SEQ ID NO: 78:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

ATCCGTTGAG TGACA 15

- (2) INFORMATION FOR SEQ ID NO: 79
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

CAGCCCGTTA TCCCC 15

- (2) INFORMATION FOR SEQ ID NO: 80:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

AACCTTTGGG AØCTG 15

- (2) INFORMATION FOR SEQ ID NO: 81:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) \$TRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SÉQUENCE DESCRIPTION: SEQ ID NO: 81:

TAAAAGGGTG AGAAA 15

(2) INFORMATION FOR SEQ ID NO: 82:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

GTCTGGCCTA TCAAT 15

(2) INFORMATION FOR SEQ ID NO: 83:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid/basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

AGATTGCCCA CGTGT 15

- (2) FORMATION FOR SEQ ID NO: :84
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO:84:

AATC¢GAGAA AACCC 15

- (2) INFORMATION FOR SEQ ID NO: 85:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO:85:

GCATTACCCG CTGGC 15

- (2) INFORMATION FOR SEQ ID NO: 86:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SÉQ ID NO: 86:

TTAAAAGGAT TCGCT 15

- (2) INFORMATION FOR SEQ'ID NO: 87:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDMESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

AGACCCCAAT CCGAA 15

- (2) INFORMATION FOR SEQ ID NO: 88:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B)/TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 88:
- GACTCCGACT TCATG 15

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ/ID NO:89:

GTCTTTTCGT CCTGC 15

(2) INFORMATION FOR SEQ ID NO: 90:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

GTCTTATCGT CCTGC 15

(2) INFORMATION FOR SEQ ID NO: 91:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENG/TH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

GTCTTC/TCGT CCTGC 15

(2) INFORMATION FOR SEQ ID NO: 92:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear



(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

GTCTTGTCGT CCTGC 15

- (2) INFORMATION FOR SEQ ID NO: 93:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

GTCTATTCGT CCTGC 15

- (2) INFORMATION FOR SEQ ID NO: 94:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic/acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGX: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

GTCTCTTCGT CCTGC 15

- (2) INFORMATION FOR SEQ ID NO: 95:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A)/LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (¢) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

GT/CTGTTCGT CCTGC 15

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

TTGGCCGGTG CTTCT 15

(2) INFORMATION FOR SEQ ID/NO: 97:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid/basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: liplear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

TTGGCCGGTA CTTCT 15

- (2) INFORMATION FOR SEQ ID NO: 98:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

TTGGCCGGTC CTTCT 15

- (2) INFORMATION FOR SEQ ID NO: 99:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

TTGGCCGGTT CTTCT 15

- (2) INFORMATION FOR SEQ ID NO: 100:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION SEQ ID NO: 100:

ACCGCGGCTG CTGGC 15

- (2) INFORMATION FOR SEQ ID NO: 101:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDED NESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE/DESCRIPTION: SEQ ID NO: 101:

ACCGCGGCTA/CTGGC 15

- (2) INFORMATION FOR SEQ ID NO: 102:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

ACCGCGGCTC CTGGC 15

(2) INFORMATION FOR SEQ ID NO: 103:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

ACCGCGGCTT CTGGC 15

(2) INFORMATION FOR SEQ ID NØ: 104:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO:104:

CGGCAGCTGG CACGT 15

- (2) INFORMATION FOR SEQ ID NO: 105:
 - (i) SEQUENCÉ CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

CGGCGGCTGG CACGT 15

- (2) INFORMATION FOR SEQ ID NO: 106:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear



(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

CGGCTGCTGG CACGT 15

- (2) INFORMATION FOR SEQ ID NO: 107:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

CGTATTACCG CAGCT 15

- (2) INFORMATION FOR SEQ/ID NO: 108:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic agid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: /linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

CGTATTACCG CCGCT 15

- (2) INFORMATION FOR SEQ ID NO: 109:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LÉNGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

CGTATTACCG CTGCT 15

(2) INFORMATION FOR SEQ ID NO: 110:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

TTCCTTTGAG TTTTA 15

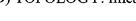
- (2) INFORMATION FOR SEQ ID NO: 111
 - (i) SEQUENCE CHARACTERISTICS
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single,
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 111:

TTCCTTTAAG TTTTA 15

- (2) INFORMATION FOR SEQ ID NO: 112:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPØLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 112:

TTCCTTTCAG TTTTA 15

- (2) INFORMATION FOR SEQ ID NO: 113:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear



(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 113:

TTCCTTTTAG TTTTA 15

- (2) INFORMATION FOR SEQ ID NO: 114:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 114:

TTCCTTAGAG TTTTA 15

- (2) INFORMATION FOR SEQ ID NO: 115:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15/basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 115:

TTCCTTCGAG TTTTA 15

- (2) INFORMATION FOR SEQ ID NO: 116:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 116:

TTCCTTGGAG TTTTA 15

(2) INFORMATION FOR SEQ ID NO: 117:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 117:,

CATGTGTCCT GTGGT 15

- (2) INFORMATION FOR SEQ ID NO: 118:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs,
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 118:

CGTCAGCCCG AGAAA 15

- (2) INFORMATION FOR SEQ ID NO: 119:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1/3 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLØGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

CACTACAÇAC GCTCG 15

- (2) INFORMATION FOR SEQ ID NO: 120:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear





TGGCGTTGAG GTTTC 15

- (2) INFORMATION FOR SEQ ID NO: 121:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

GTCCGTGAAC CCGAT 15

- (2) INFORMATION FOR SEQ ID №O: 122:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

TACGCTCTTT GAGCT 15

- (2) INFORMATION FOR SEQ ID NO: 123:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C)/STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

AACACTCCCT TTGGA 15